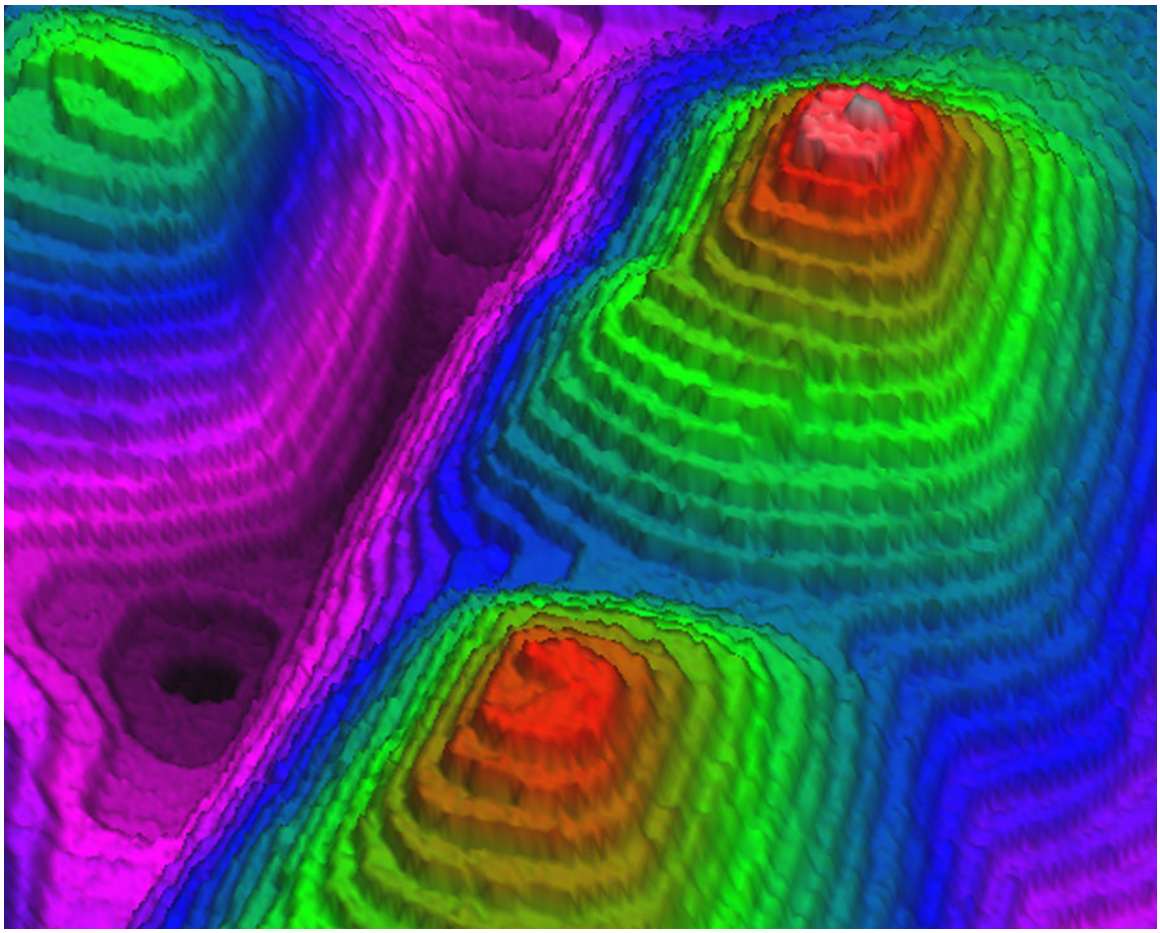

Spiral Growth at Threading Dislocations

The surface of a 4-μm-thick GaSb film grown on a GaAs(001) substrate by molecular beam epitaxy. The image, with a field of view of approximately 1 μm, reveals the nanometer-scale morphology of the spiral-like structures that grow around threading dislocations in the film (caused by the film's 7% lattice mismatch with the substrate). Each threading dislocation creates a 0.3-nm-height "step" where it emerges at the surface.